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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,855	08/25/2003	Evan Francis Cromwell	6004P2659	3679
23504	7590	11/02/2005	EXAMINER	
WEISS & MOY PC 4204 NORTH BROWN AVENUE SCOTTSDALE, AZ 85251				VALENTIN, JUAN D
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/647,855	CROMWELL ET AL.
	Examiner Juan D. Valentin II	Art Unit 2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 3-35 is/are rejected.
- 7) Claim(s) 2 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 8 recites the limitation "wherein each group of detector elements" in line 1. There is insufficient antecedent basis for this limitation in the claim. Examiner believes claim 8 is suppose to depend from claim 7, therefore the claims will be examined as if claim 8 depended from claim 7. Applicant is asked to please amend the claim in order to correct the antecedent basis error in claim 8.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-6, 16-20, 23, 24, & 31-34 rejected under 35 U.S.C. 102(e) as being anticipated by Goldman et al. (USPN '927 B2, hereinafter Goldman).

**Claims 1, 3-6, 16-20, 23, 24, 31, 32, 33, & 34**

Goldman discloses in conjunction with Fig. 3, an active sensor system for detecting optical behavior of one or more samples 28, said system comprising at least one substrate, multiple illumination elements 24 disposed on a first one of said at least one substrate, said illumination elements forming multipixel illumination source 22, whereby portions of said samples 28 are substantially uniquely illuminated by associated ones of said illumination elements 24, multiple detector elements 30 disposed on a second one of said at least one substrate and forming a multipixel detector 30 interspersed with said illumination elements, whereby light returning in response to said illumination from said portions of said samples are substantially uniquely detected by associated detector elements 30, an illumination control subsystem 38 coupled to said multiple illumination elements 24 for controlling said illumination of said portions of said samples 28, and a processing subsystem 38 coupled to said multiple detector elements 30 for producing an output indicating a detected optical signal corresponding to said light returning from said portions said samples 28 (col. 3, line 30-col. 5, line 67).

Goldman teaches a sandwich structure between the LED array 22, sample well container 26, and detector array 30 (Fig. 3). Goldman further discloses placing both the illumination and detection systems in close proximity to said samples (Fig. 3).

It is further inherent that the detector (CCD) of Goldman individually detects each sample well 28, therefore each pixel(s) of the CCD array is positionally associated with one or more of the sample wells 28 (col. 4, lines 38-42). Goldman further discloses that an imaging system (i.e. lens and filters) can be used within the system disclosed (col. 5, lines 45-52). It is further inherent that the system disclosed as a whole is integrated on one or more substrates.

Goldman discloses a two-dimensional and one-dimensional configuration of illumination and detector elements (Fig. 3, 24).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-16 & 25-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Goldman.

**Claims 7, 11, & 12**

Goldman discloses the claimed invention except it fails to show LED(s) associated with a group of detector elements. It would have been obvious to someone of ordinary skill in the art at the time of the claimed invention to combine Goldman with programming the CCD array of Goldman to capture fluorescent emission of each sample with multiple pixels or just a single pixel depending on the size and amount of fluorescent being measured since it was well known in the art that the size, shape, and number of arrays of both the LED, sample wells, and optical detectors can vary from application to application (col. 4, lines 16-20). Goldman discloses wherein each LED has a unique emission output in order to individually excite different fluorophore samples 28 (col. 4, lines 20-41)

**Claims 8-10, 13-16, 25-30**

Goldman discloses the claimed invention except for filters located just before the fluorescent emission reaches the detector. It would have been obvious to one having ordinary skill in the art at the time of the claimed invention was made to place a filter in front of the detector as well as after the light source, since it has been held that a mere reversal of the essential working elements of a device involves only routine skill in the art. Further, Goldman discloses one of ordinary skill in the art will understand that lens and filters can be added to the device in order to better aid in focusing and processing the light emitted from the LED array (col. 5, lines 45-52), therefore providing motivation for the use of both a spectral passband filter or a polarization filter for the purposes of providing light filtration and better processing of measured light.

***Allowable Subject Matter***

4. Claim 2 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

"Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. *In re Selmi*, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); *In re Fischer*, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well known statement was made."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D. Valentin II whose telephone number is (571) 272-2433. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

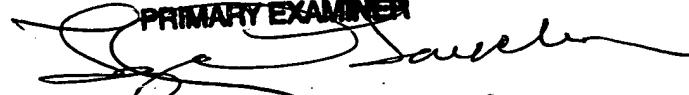
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Juan D Valentin II  
Examiner 2877  
JDV  
October 31, 2005

PRIMARY EXAMINER  
LAYLA G. LAUCHMAN

LAYLA G. LAUCHMAN  
PRIMARY EXAMINER

  
10/31/05